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Pathology Page

Aspergilloma in the Pulmonary Cavity

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A 68-year-old man had been diagnosed with bronchiectasis for many years. Posteroanterior chest X-ray showed nodular lesion in the bronchiectatic cavity of the right lower lobe of the lung. Lobectomy was performed. Grossly, one grayish ball-like substance occupied the bronchiectatic fibrotic cavity (Fig. 1). Microscopically, we found an aspergilloma composed of a dense, roundish mass of tangled hyphae within the cavity. The *Aspergillus* showed septate hyphae, 2–7 μm in diameter, branching progressively at acute angles (Fig. 2).

Aspergillus species are common environmental fungi that cause opportunistic infections, usually involving the lungs. There are three types of pulmonary aspergillosis: (1) allergic pulmonary aspergillosis; (2) colonization of a preexisting pulmonary cavity (aspergilloma or fungus ball), such as in this case; and (3) invasive aspergillosis.

Aspergillomas occur most commonly in old tuberculous or bronchiectatic cavities. Symptoms reflect the underlying disease. The radiological appearance of a dense round ball in a cavity is characteristic. The *Aspergillus* hyphae colonize one cavity and do not invade adjacent tissues. Aspergillomas are usually best left untreated, but surgical excision may be indicated in some cases. (*Tzu Chi Med J* 2008;20(4):335–336)

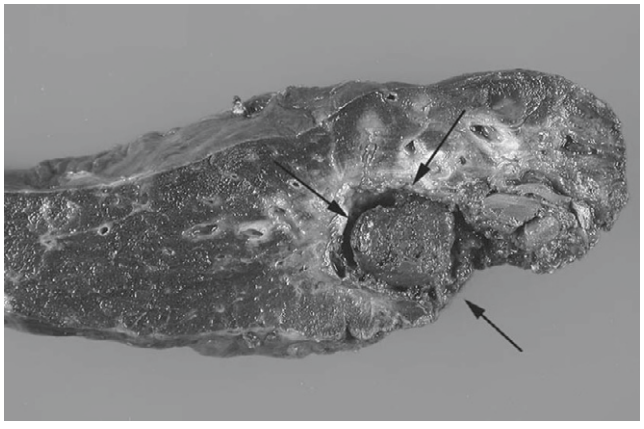

Fig. 1 — One grayish round ball-like substance occupied the thick walled cavity (arrows).

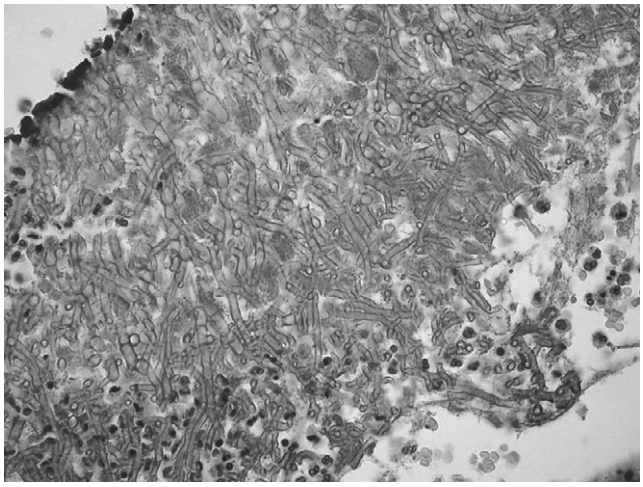

Fig. 2 — Histopathology shows septate hyphae, 2–7 μm in diameter, branching at acute angles (hematoxylin & eosin, 400×).

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